

Title (en)
THERMOELECTRICALLY CONTROLLED HEAT MEDICAL CATHETER

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Application
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Abstract (en)
[origin: WO8904137A1] A system and method are disclosed for providing precisely controlled heating (and cooling in some cases) of a small region of body tissue to effectuate the removal of tumors and deposits, such as atheromatous plaque, without causing damage to healthy surrounding tissue. e.g. arterial walls. Such precisely controlled heating is produced through thermoelectric and resistive heating, and thermoelectric control of a heated probe tip. The system includes a probe tip with N-doped and P-doped legs (6, 8) of semiconductor material, a catheter (20) to which the probe tip is attached for insertion into a patient's body, and a system control mechanism. The probe may be used for reduction and/or removal of atheromatous obstruction (30) in arteries or veins. It may also be used for destruction of diseased tissue and/or tumors in various parts of the body, such as the brain or the bladder. The probe may be configured for either tip heating or for side heating.

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